



Fiberizer Desktop User's Manual

**V. 1.2
December 14, 2013**

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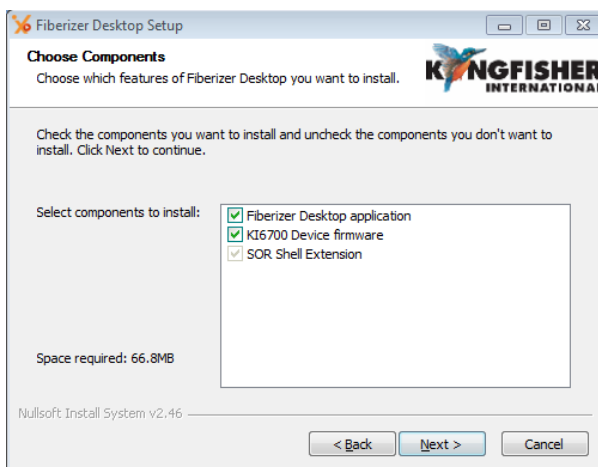
1. General Information

Fiberizer Desktop PC Software

Fiberizer is a Windows™ based application for working with OTDR traces, compatible with Windows™ XP/Vista/7 (x86/x64) operating systems. The software is capable of displaying, storing, printing and analyzing several traces simultaneously. **Fiberizer** can control the operation of the OTDRs via a USB cable and Windows Mobile Device Interface **AcitveSync** (or **Windows Mobile Device Center**) if desired by the OTDR operators.

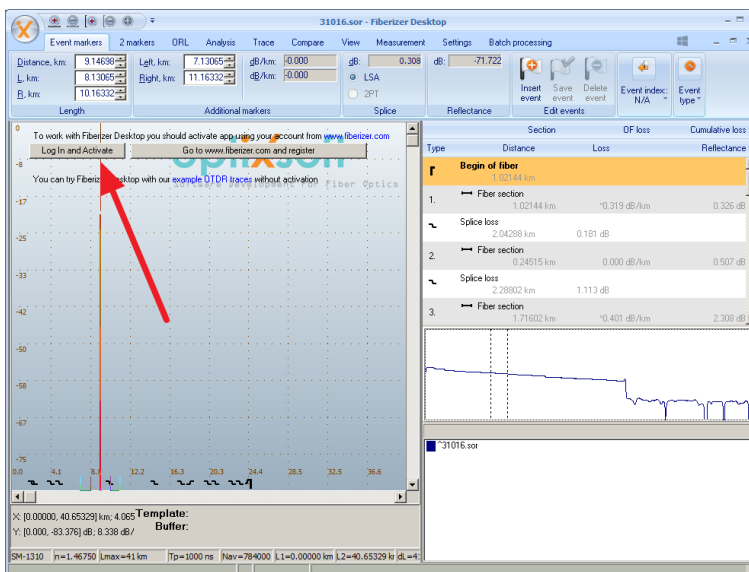
Software Installation

1. Insert the CD to the PC or unzip the archive to the hard drive.
2. Execute Fiberizer setup.
3. Follow the instruction of the installation wizard.



Software Activation

In order to use **Fiberizer Desktop** software to **analyze SOR files measured by OTDRs from other vendors** - you need to register at fiberizer.com.



Registration form fields:

- First Name: John
- Last Name: Doe
- Email: johndoe@mail.com
- Password: [Redacted]
- Confirm Password: [Redacted]
- ☒ I agree with Fiberizer Cloud Terms of Use
- Register**

Enter your account parameters and wait for the server to verify your licensing information. During license verifying you may get the following notification from server:

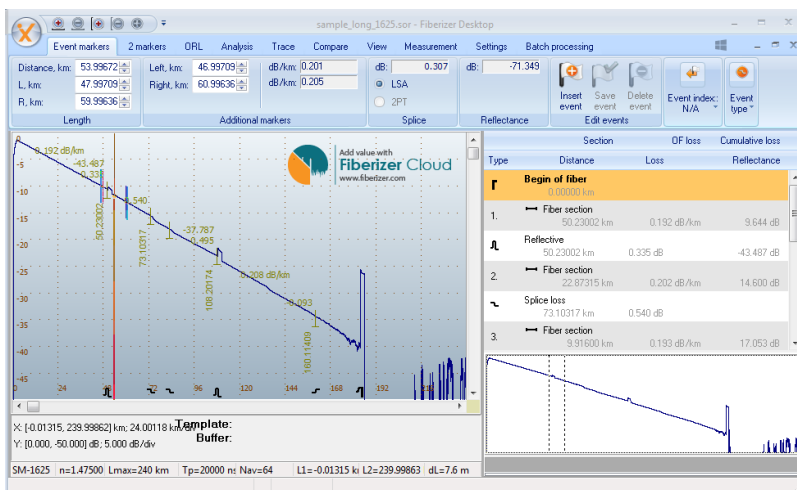
Some problems with your Fiberizer Cloud account or subscription plan.

In most cases this means that you've used your www.fiberizer.com account for **Fiberizer Desktop** on more than 5 computers, which is the limitation of single account on multiple devices.

2. Screens and Menus

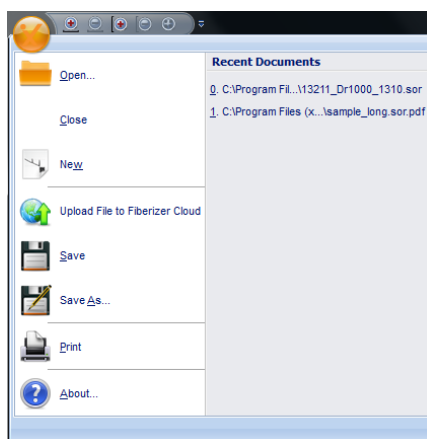
Main Screen

The main screen of **Fiberizer** Desktop is divided into several sections. The section below gives a summary of the **Main screen** features.



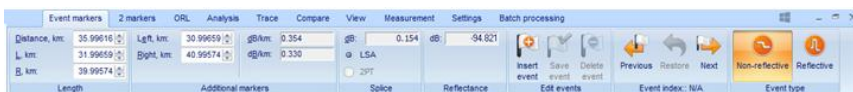
Title Menu Bar


Title Menu Bar displays the available system level pull-down **File** menu and zoom shortcuts.



Tab Menu Bar (Panel)

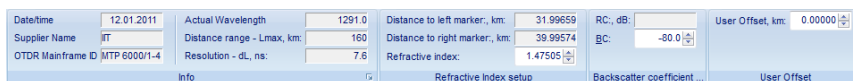
Tab Menu Bar displays all application commands grouped by functions.




Press the  button at the upper right corner of the Tab Menu Bar to see the list of currently opened files and traces.

Switching between tab bars (like “Event Markers”, “2 Markers”, “ORL”, “Trace”) cause markers mode change - 5 or 2 markers are appeared on the screen respectively.

Trace Information Tab



To open the Trace Information dialog box, press the arrow button  located at the lower right corner of the **Info** tab under the **Trace** tab. See **Trace Information** section for details of the dialog box.

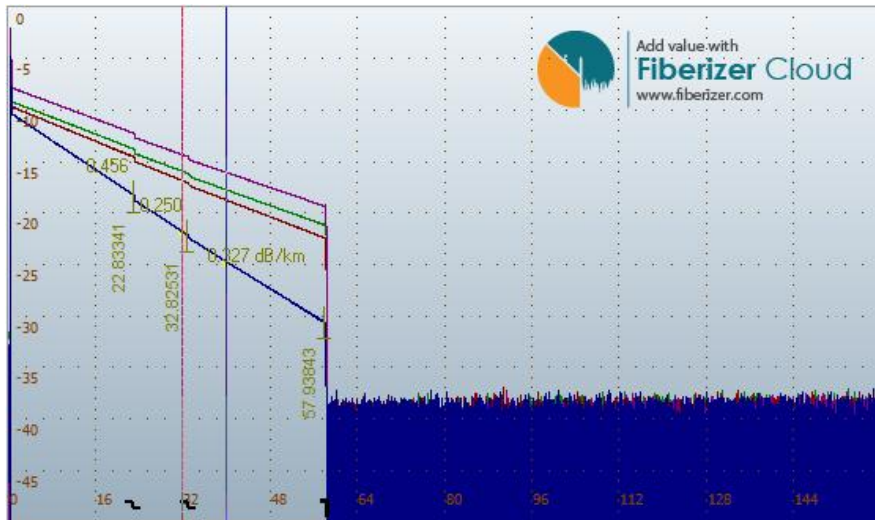
Trace Panel

The Trace Panel displays the visual representation of attenuation and reflection of an optical fiber. The beginning of the fiber is located at the left side of the trace. The slope or attenuation of the fiber can be seen as the trace moves to the right. There are two active markers, the information containing the location of the markers is located at the left side of the screen as shown below.

The Trace Panel also displays several measurement values that correspond to attenuation, attenuation loss at an event, distance to an event and Optical Return Loss (ORL). These values are the measurements from the Automatic Trace Analysis that the OTDR performed in Automatic mode. See the **Trace Analysis** section for more information.

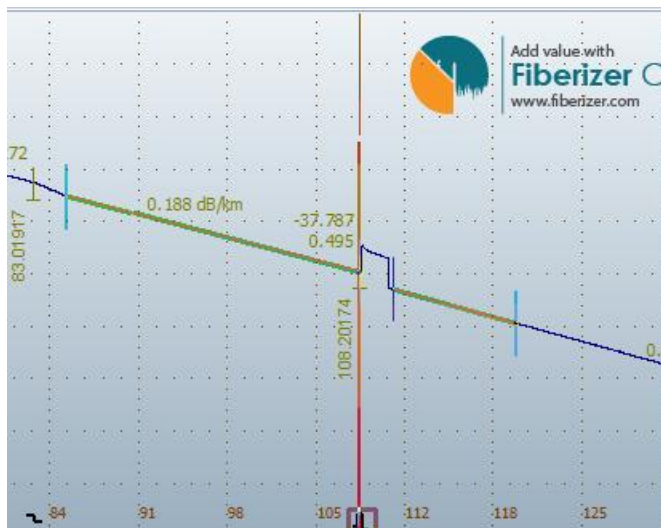
The testing parameters for the active trace are located at the Information Panel below the Trace Panel. All parameters are preset by the operator

prior to running a test. See the **Measurement** section for more information.



Shortcuts (mouse gestures for Trace Panel)






To work on Event markers and trace:



1. Drag the thick part of the central marker to move all markers simultaneously (lock markers)
2. Drag the thin (top) part of the central marker to move it independently
3. The left mouse click moves the central marker to the mouse pointer position and all others moved respectively (locked)
4. The right mouse click moves the central marker to the mouse pointer position and all others distributed within the zoomed area
5. Hold and drag the right mouse button to scroll/move the trace
6. Hold and drag the left mouse with the Alt key pressed, to magnify a desired section

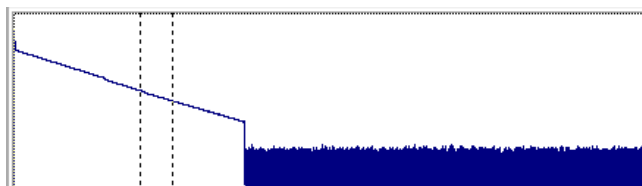
Event Table Panel

The Event Table Panel displays saved events in a tabular format

Section		OF loss	Cumulative loss
Type	Distance	Loss	Reflectance
Begin of fiber			
	0.00000 km		-39.225 dB
1. 	22.83341 km	0.351 dB/km	8.015 dB
	22.83341 km	0.456 dB	
2. 	9.99190 km	0.343 dB/km	11.898 dB
	32.82531 km	0.250 dB	
3. 	25.11312 km	0.327 dB/km	20.360 dB

Preview Panel

The Preview Panel displays the current trace section relative to the entire trace.



Trace List Panel

The Trace List Panel displays the list of traces for the current window and their colors.

■	^13211_Dr1000_1310.sor
■	13211_Dr1000_1625.sor
■	13211_Dr1000_1490.sor
■	13211_Dr1000_1550.sor

Parameters Panel

The Parameters Panel displays the trace parameters

X: [-0.00847, 159.99145] km; 15.99999 km/div Y: [0.000, -50.000] dB; 5.000 dB/div	Template: Buffer:
SM-1310 n=1.47505 Lmax=160 km Tp=1000 ns Time=02:59 L1=-0.00848 ki L2=159.99146 dL=7.6 m OMSN: 13211	

X – Shows the distance range of the displayed section and the scale of the distance on the horizontal axis

Y – Shows the range of loss in dB for the entire trace window and the scale of the loss per division on the vertical axis

Fiber Type – Identifies the fiber type (multimode or single mode) and the wavelength

N – Displays the Refractive Index of the fiber

Lmax – Displays the total distance range

Tp – Displays the duration of the pulse width used

Nav – Indicates the number of averages

L1 – Indicates the distance from the beginning of the fiber to the beginning of the measured section

L2 – Indicates the distance from the beginning of the fiber to the end of the measured section

In order to reach more accurate measurements, it may be necessary for the technician to adjust certain testing parameters for the specific fiber under test.

The operating parameters should be set according to the characteristics of the fiber link under test. For short fiber run, shorter pulse widths and fewer averages are optimum. For longer fiber run, longer pulse widths and more averages are the best. The parameters chosen by users are dependent on the testing requirements. Tradeoffs may be necessary sometimes.

3. Operations

Event Markers Tab

After the OTDR finishes the measurement, it can also perform Automatic Trace Analysis if the option is enabled. Once the trace analysis is completed, the OTDR determines the **distance** of the fiber line, **distance to events**, the **attenuation** of the fiber link and sections, the Optical Return Loss (ORL), the **splice losses** and the **connector losses**. The events are also displayed in the **Events Table**.

The OTDR creates marks with inserted event symbols. From these marks, the OTDR determines the appropriate values. The event distance is indicated with the vertically oriented text on the trace. Fiber attenuation values are displayed in dB/*distance*.

Length group

Distance, km:	30.99659
L, km:	16.78165
R, km:	39.99574
Length	

Distance, km – Enables users to change distance of event marker

L, km – Adjusts main Left marker

R, km – Adjusts main Right marker

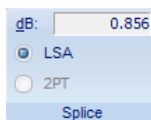
Additional Markers group

Left, km:	15.78165	dB/km:	0.340
Right, km:	40.99574	dB/km:	0.330
Additional markers			

Left, km - Adjusts the left-most marker of **LSA**

Right, km – Adjusts the right-most marker of **LSA**

Splice group -

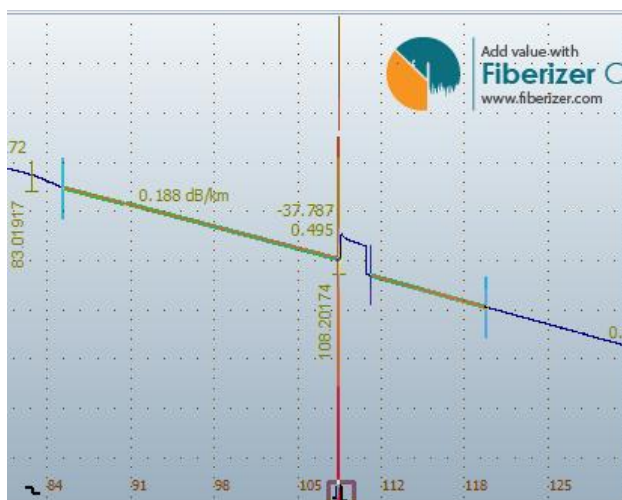


A small dialog box titled "Splice" with a light blue background. It contains a "dB:" label followed by a text input field showing "0.856". Below this are two radio buttons: "LSA" (which is selected) and "2PT". At the bottom is a "Splice" button.

LSA mode is only available when users are working on events. **dB** field displays the splice loss value calculated with **5-Markers LSA** method.

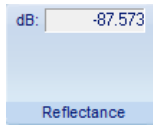
By using the **Five Markers** method, the OTDR can measure the attenuation of a specific event. The **Five Markers** method works as described below.

The left marker (**L**) and the right marker (**R**) are placed at either side of the event, as close as possible to the edges of the event, without touching the event itself. The two outermost markers (**Left** and **Right**) are used to calculate the straight line approximation of the fiber on both sides of the event and the fifth marker (**C**) is used to locate the beginning of the event. The **dB** field displays the attenuation of the event.



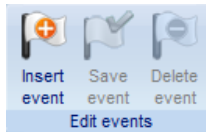
5 markers on the trace Panel

Reflectance group



dB field displays the reflectance value for current event defined by positions of 5 markers on the active trace.

Edit Events group

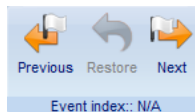


Insert Event – Inserts an event to the Event Table with respect to the current markers (center marker) location

Save event – Saves the modified event

Delete Event – Deletes the selected event

Event Index group



Moves to the **Next** or **Previous** event in the Event Table.

Event Type group



The Event type detected is either **Non-reflective** or **Reflective**.

2 Markers Tab – 2PT and LSA Measurement Modes

The measurement values are based upon where the left marker (**L**) and the right marker (**R**) are positioned on the trace. The (**L,km**) field indicates the distance of the left marker (**L**) while the (**R,km**) field indicates the distance of the right marker (**R**) on the trace. (**R-L,km**) indicates the distance between the left and the right markers.

Length group

L, km:	31.99659
R, km:	39.99574
R-L, km:	7.99915
Length	

L – Distance to left marker

R – Distance to right marker

R-L – Distance between markers

2PT group - measuring attenuation between two marker points

The **dB** field displays the attenuation between the left and the right markers, while the **dB/km** field displays the attenuation co-efficient.

dB:	2.890
dB/km:	0.361
2PT	

dB – Attenuation between markers calculated *without* LSA approximation

dB/km – Slope (attenuation divided by R-L distance)

LSA group - measuring attenuation with approximation (LSA)

The attenuation measurement by approximation mode is used to measure non-event sections of the fiber link. This mode increases the accuracy of the attenuation measurement between the two markers by using a straight line to approximate the measurement.

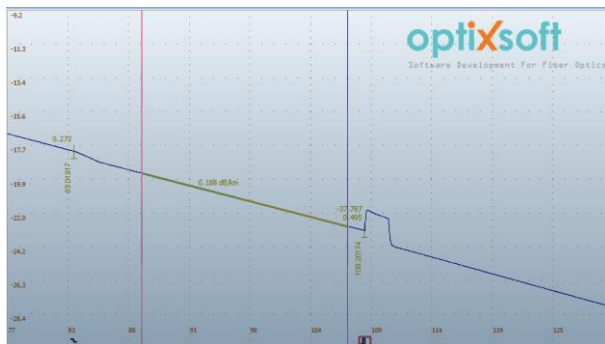
The **dB** field in the **LSA group** displays the attenuation between the left and the right markers, while the **dB/km** field displays the attenuation coefficient.

dB:	2.833
dB/km:	0.354
LSA	

dB – Attenuation between markers calculated with LSA approximation

dB/km – Slope (attenuation divided by R-L distance)

L, km: 88.93573	dB: 3.345	dB: 3.353	<input type="checkbox"/> Lock markers
B, km: 106.73009	dB/km: 0.188	dB/km: 0.188	<input checked="" type="checkbox"/> Approximation Line
R-L, km: 17.79436			
Length	LSA	2PT	Options



2PT and LSA Groups and Trace Panel

Options group

<input type="checkbox"/> Lock markers
<input type="checkbox"/> Approximation Line
Options

Check **Lock markers** to drag markers left or right simultaneously.

Check **Approximation line** to display line visually over the active trace.

Optical Return Loss (ORL) Tab

This marker method measures the Optical Return Loss of a partial fiber section or the whole fiber link by placing the left (L) and the right (R) markers on the fiber link that is being tested.

ORL Tab

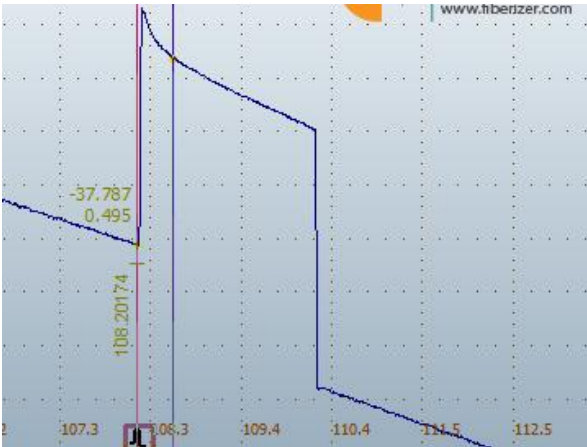
dB:	2.890
ORL, dB:	33.948
ORL	

dB – dB loss between L and R markers

ORL – ORL value between L and R markers

The **dB** field in the **ORL group** displays the attenuation between the left and the right markers while the **ORL, dB** field displays the ratio (in dB) of the optical power entered into the fiber link versus the power returned to the beginning of the fiber for the marked section.

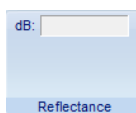
L, km:	108.07621	dB:	-1.268	dB:	-38.980
km:	108.38906	ORL, dB:	47.703		
R, km:	0.31285				
Length		ORL		Reflectance	



ORL Information Group and Trace Panel

Reflectance group

The **Reflectance, dB** field displays the reflectance value for reflective event located between the left and the right markers.

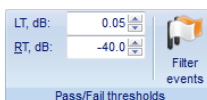


The right marker must be placed on the top of the pulse and the left marker is placed on the pulse front at the backscattering level.

Trace Analysis

Pass/Fail Thresholds Group

The group contains the threshold values that the OTDR uses to compare with the actual trace values when it's operating in the Automatic Trace Analysis mode. These values are entered by the OTDR operator and used to compare expected measurement values to actual measurement values. The measurement values are displayed in the **Events Table** and if the real parameters higher than thresholds – events are shown in Event Table.



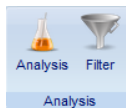
Filter events – can be used to show full events table or only failed events

Event Loss (LT) – Threshold of the event attenuation value in dB. Events with attenuation value that exceeds the threshold value are then shown in the **Events Table**.

Reflectance (RT) – Threshold of the event reflectance value in dB. The reflected events with higher reflectance than the threshold value are shown in the **Events Table**.

According to the EIA/TIA standards, true attenuation losses are only determined by a power meter and a laser source.

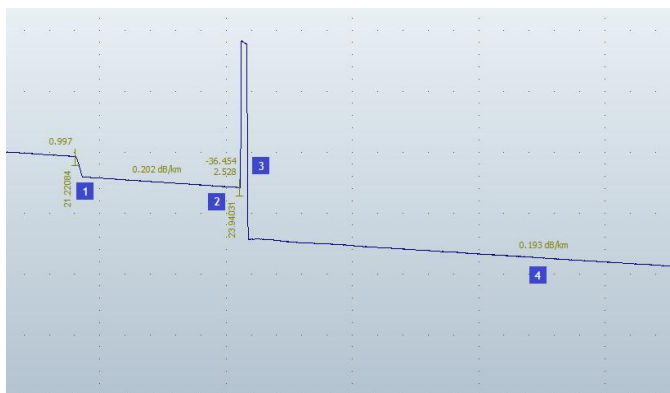
Analysis group



Analysis – Performs Auto Trace Analysis

Filter – Reduce noise of the trace by applying digital filter

Auto Trace Analysis



Where

1. Splice Loss
2. Distance to Event
3. Connector Loss
4. Attenuation of fiber link and fiber section

After the OTDR finishes the measurement, it can also perform Automatic Trace Analysis if the option is enabled. Once the trace analysis is completed, the OTDR determines the **distance** of the fiber link, **distance to events**, the **attenuation** of the fiber link and sections, the Optical Return Loss (ORL), the **splice losses**, and the **connector losses**. The events are also displayed in the **Events Table**.

The OTDR creates marks with inserted event symbols. From these marks, the OTDR determines the appropriate values. The event distance

is displayed in vertical text on the trace. Fiber attenuation values are displayed in dB/*distance*.

In the **Auto** mode, the OTDR compensates for the dead zone of the fiber link and calculates the attenuation from the end of the dead zone.

Trace Information Tab

The Trace tab shows parameters for the currently active trace. Users can modify several variables if desired. This tab includes general information about the trace, such as date, the manufacturer's information and the trace wavelength. It also includes marker information to help index of reflection adjustments and back scattering values.

Information Group

Date/time	12.01.2012	Actual Wavelength	1291.0
Supplier Name		Distance range - Lmax, km:	160
OTDR Mainframe ID		Resolution - dL, ns:	7.6
Info			

Date/Time – Displays time and date of recorded trace

Supplier Name – OTDR's supplier name

OTDR Mainframe ID – OTDR's hardware model

Actual Wavelength – Precise value of wavelength used

Distance Range (Lmax) – Distance set for this trace

Resolution (dL) – Measurement sampling distance

Trace Information Dialog

General

The screenshot shows a Windows-style dialog box titled "Information - [13211_Dr1000_1310.sor]". It has four tabs: "General", "Supplier Parameters", "Measurement parameters", and "Analysis Parameters". The "General" tab is active. The form contains the following fields and controls:

- Date/Time: 12.01.2011 09:20:55
- Cable ID: (empty text field)
- Fiber ID: (empty text field)
- Fiber Type: [G.652] Conventional SMF (dropdown menu)
- Originating Location: (empty text field)
- Terminating Location: (empty text field)
- Condition: as-built (dropdown menu)
- Trace Type: standard trace (dropdown menu)
- Cable Code: (empty text field)
- Operator: (empty text field)
- Comment: (empty text field)

On the right side of the dialog, there are buttons for "OK" (with a green checkmark icon), "Cancel" (with a red X icon), "Copy", and "Paste". Below the "Copy" button, the text "rfl.sor" is visible.

Date/Time – Displays date and time when the trace was recorded

Cable ID – Enters Cable ID

Fiber ID – Enters Fiber ID

Fiber Type – Fiber type selection

Originating Location – Enters originating location

Terminating Location – Enters terminating location

Condition – Selects fiber condition

Trace Type – Selects fiber trace type

Cable Code – Enters cable Information

Operator – Enters operator information

Comment – Enters additional comments

Supplier

Information - [13211_Dr1000_1310.sor]

General | **Supplier Parameters** | Measurement parameters | Analysis Para

Supplier Name:

OTDR Mainframe ID:

OTDR Mainframe S/N: 13211

Optical Module ID: SM /1310/1490/1550/1625

Software Revision: 1.3.2.793 VA=130706

Other: v1.1[665]

OK Cancel

Copy Paste

rfl.sor

Supplier Name – OTDR supplier's name

OTDR Mainframe ID – OTDR's mainframe ID

OTDR Mainframe S/N – OTDR's serial number

Optical Module ID – OTDR's modules ID

Optical Module S/N – OTDR's serial number

Software Revision – Software revision number

Other – Other module information

Measurement Parameters

Information - [13211_Dr1000_1310.sor]

General | Supplier Parameters | **Measurement parameters** | Analysis Para

Actual Wavelength: 1291.0 nm

Refractive index - n: 1.47505

Distance range - Lmax: 160 km

Section begin - L1: -0.00848 km

Section end - L2: 159.99146 km

Resolution - dL: 7.6 m

Pulse width - Tp: 1000 ns

Average time: 02:59

☐ High resolution

☐ Low laser power

☐ Parameters were selected automatically

OK Cancel

Copy Paste

rfl.sor

Actual Wavelength – Precise value of wavelength

Refractive Index – Refractive index

Distance Range (Lmax) – Distance set for this trace

Section begin (L1) - Defines the location of the left marker

Section end (L2) - Defines the location of the right marker

Resolution (dL) – Measurement sampling distance

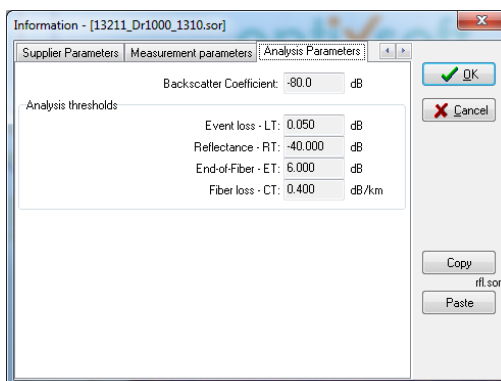
Pulse-width (Tp) – Pulse width

Number of Averages - 4095*Nav – Number of average set for this trace

High resolution – Indicates if high resolution was set

Low laser power – Indicates if low laser power was used

Analysis Parameters



Backscattering Coefficient – BC value

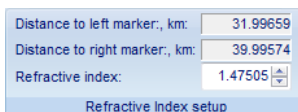
Event Loss - LT – Threshold of the event attenuation value in dB

Reflectance - RT – Threshold of the event reflectance value in dB

End-Of-Fiber - ET – Threshold of the event attenuation value in dB to define fiber end

Fiber Loss - CT – Attenuation coefficient threshold value of the section in dB/km

Refractive Index Setup Group



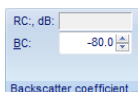
A dialog box titled "Refractive Index setup" with a light blue background. It contains three input fields: "Distance to left marker:, km:" with the value 31.99659, "Distance to right marker:, km:" with the value 39.99574, and "Refractive index:" with the value 1.47505. The "Refractive index:" field has a small dropdown arrow on its right. At the bottom, there is a button labeled "Refractive Index setup".

Distance to left marker, km – Defines the location of the left marker

Distance to right marker, km – Defines the location of the right marker

Refractive Index – Refractive index set for this trace

Backscatter Coefficient Group



A dialog box titled "Backscatter coefficient ..." with a light blue background. It contains two input fields: "RC:, dB:" and "BC:" with the value -80.0. The "BC:" field has a small dropdown arrow on its right. At the bottom, there is a button labeled "Backscatter coefficient ...".

RC, dB – Current value of Reflective Coefficient

Backscattering Coefficient – BC value of this trace

User Offset Tab



A dialog box titled "User Offset" with a light blue background. It contains one input field: "User Offset, km:" with the value 0.00000. The field has a small dropdown arrow on its right. At the bottom, there is a button labeled "User Offset".

User Offset – Shifts the zero point across the trace and calculates distance relative to the new 0 km position.

Compare Tab

For a fast analysis of a multi-fiber optic cable with many events, the **Compare and Trace** functions are a very useful tool. With the **Compare and Trace** option, users can transfer marks and parameters from one fiber to another by simply pressing one key.

Compare and Trace Function

Selecting **Create R-Template** allows users to save data points of the marks on a trace to a buffer and transfer those points to a different trace for evaluation. After creating a template, it is possible to use the **Apply Template** and **Delete Template** functions. The template is the analysis calculations related to a particular trace.

The data stored in the template buffer can be erased and overwritten by repeating the above procedure. Each trace is displayed in its own separate window. However, users may insert several traces in one window for data comparison.

To insert a trace from one window into another window simply follow the procedure below

1. Open the trace window to be copied
2. Press **Copy Trace** in the Compare Tab

The trace is then saved in the buffer displayed in the **Information** panel. **Paste** function is activated once this is done.

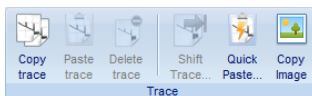
1. Open the host trace window
2. Press **Paste Trace** in the Compare Tab

The names of the inserted traces then appear in the **Information** panel under **Traces** (The host trace name then appears at the top of the list). It is possible to insert up to seven traces at the same time.

Only one trace is active in the host window. This is indicated by the symbol '▲' beside the file name in the **Traces** window of the **Information** panel. It's possible to use the vertical markers to measure the length and the attenuation of each active trace. To make a trace active, simply double click on its name in the **Information** panel. Pressing keys **CTRL+SPACE** when it is highlighted also activates the trace. Pressing **CTRL+PAGE UP** and **CTRL+PAGE DOWN** allows users to scroll up and down through traces in the **Information** panel.

To remove an inserted trace from the host window, select and highlight the trace then press **Delete Trace** button.

Trace Group



Copy Trace – Copies trace to clip board

Paste Trace – Inserts trace from clip board to current trace

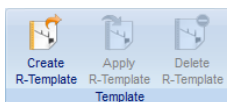
Delete – Deletes inserted trace

Shift Trace – Enables shifting of the trace vertically

Quick Paste – Enables a shortcut to paste previously opened traces

Copy Image – Copies image to clip board

Template Group



Create R-Template – Saves the current trace as template

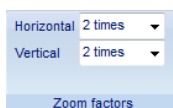
Apply R-Template – Applies template to trace

Delete R-Template – Deletes template

View Tab

The View tab enables users to setup the viewing functions when looking at a trace. This includes trace zoom viewing, events table viewing and multiple trace viewing.

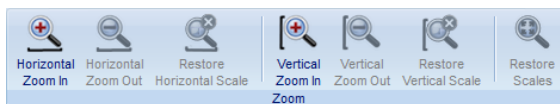
Zoom Factors Group



Horizontal – Selects the horizontal zoom factor (x1.1, x1.3, x 2, x5, x10)

Vertical – Selects the vertical zoom factor (x1.1, x1.3, x 2, x5, x10)

Zoom Group



Horizontal Zoom In – Zooms in Horizontally

Horizontal Zoom Out – Zooms out Horizontally

Restore Horizontal Scale – Restores H scale

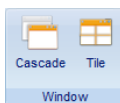
Vertical Zoom In – Zooms in Vertically

Vertical Zoom Out – Zooms out Vertically

Restore Vertical Scale – Restores V scale

Restore Scales – Restores both scales to default settings

Window Group



Cascade – Cascades active traces

Tile – Tiles active traces

Measurement Tab

Start (Averages) measurement mode with averaging is designed for measuring and analyzing all parameters of the fiber optic cable. When using this feature, the measurement average counter is displayed at the bottom of the main screen. The OTDR displays a progress bar (**Number of Averages**) at the bottom of the screen. This indicates time elapsed verses total measurement time. The unit beeps when the total measurement is completed.

Start (Live) – In the **Real Time** mode, the OTDR continues to run measurements according to the preset parameters.

Stop – Both **Average** or **Live** reading may be stopped by this command at any time during the measurement process.

This tab enables users to setup the desired parameters of the next trace to be measured.

These parameters are:

Wavelength

Distance

Pulse Width

Averaging Time

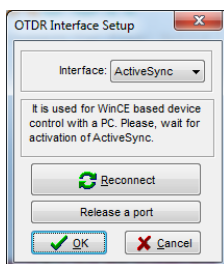
Resolution

Backscattering co-efficient

Index of Refraction value

Device Group

Connect – Connect to OTDR unit through ActiveSync or Windows Mobile Device Center

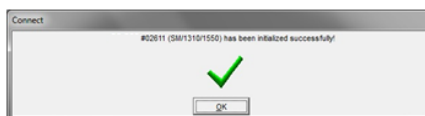
Interface Setup Dialog

Connect OTDR to Fiberizer Desktop via Windows Mobile Center

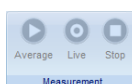


1. Download Windows Mobile Device Center to your PC
2. Open Mobile Device Center Application
3. Turn off OTDR – make sure all data are saved before power down
4. Connect the OTDR and the PC with the supplied USB cable
Note: *The Mini USB connector attaches to the OTDR and the USB connector attaches to the PC*
5. Turn on the OTDR – The PC loads the drivers for the OTDR and connects through the Mobile Device Center

Press **Connect** button at the Measurement tab to activate the Mobile Device Center connection. Once connection has been established between the PC and the ORDR unit, the Fiberizer application can manage the parameters and the activities of OTDR measurement.



Measurement Group

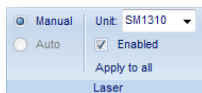


Average – Runs a normal measurement with averaging

Live – Runs a measurement in the real time mode

Stop – Stops the measurement

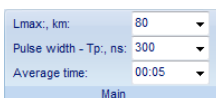
Laser Group



Manual – Enables manual Parameter setup

Auto – The unit performs an Auto test to determine the appropriate parameters for cable under test

Main Group

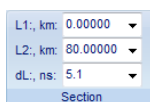


Lmax, km (Distance range) – Distance setting

Pulse width - TP – Selects width of output pulse

Average time – Average time for measurement

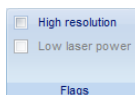
Section Group



L1 and L2, km - Defines the acquired range within Lmax

dL, ns (Resolution) - Selects the measurement sampling distance

Flags Group



High resolution – Increases measurement bandwidth

Low Laser Power – Decreases pulse power

Others Group



Trace refreshing time – Used for Active mode only

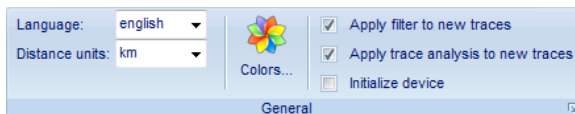
BC (Backscattering Coefficient) – Values of the optical pulses in dB scattered back to the OTDR from the optical fiber under test

Refractive index (n) – Adjusts the refractive index of the fiber in increments of 0.00001

Settings Tab

The Settings tab enables the users to change the language as well as the measurement units. It also allows users to apply different parameters to a trace before or after a trace have been measured.

General Group



Language – Changes the language – English, Spanish, or Korean

Distance unit – Changes the measurement value - Km, m, Ft, Kf or Mi

Colors – Selects element colors

Apply filter to new traces – Applies a Filter to all new traces

Apply trace analysis to new traces – Applies the Automatic Analysis mode to all traces

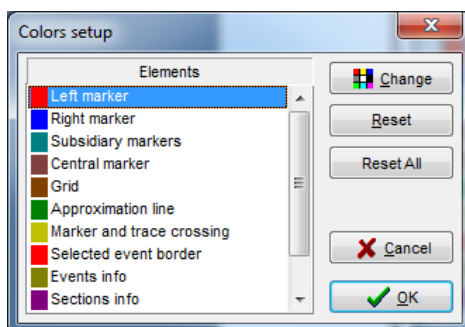
Initialize Device – Automatically checks the device connection when the software is launched

Color Setup Dialog

This option enables users to change the color scheme of the Fiberizer software elements by changing the color palette.

1. Highlights the specific Element
2. Selects **Change** to pop up the standard color selection window
3. Selects the colors you wish and press **OK**

Press **OK** To save changes and exit the dialog box or press **Cancel** to quit without changing any colors. Press the **Reset** button to reset colors to defaults.



Element Colors

- Left marker
- Right marker
- Subsidiary markers
- Central marker
- Grid
- Approximation line
- Selected event boarder
- Events information
- Sections information
- Trace Background
- Grid Marks

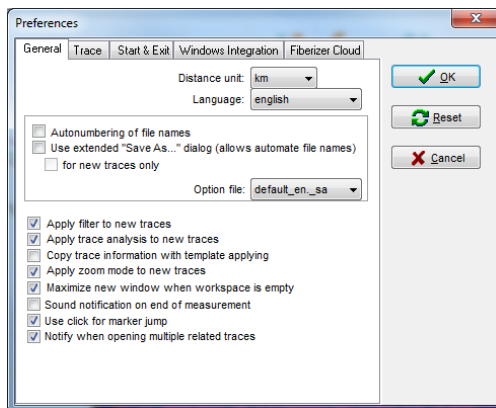
Preference Dialog

Press the **OK** button to save all changes.

Press the **Reset** button to reset default values.

Press the **Cancel** button to cancel all the changes.

General



Distance unit - Changes the measurement value – Km, m, Ft, Km or Mi

Language – Changes the language options – English, Spanish or Korean

Auto-numbering of file names – Automatically numbering the traces in the order the measurement taken

Extended Save As – Allows users to change the root directory of files

Color print – Prints with or without color

Use extended Print – Enables users to use the extended Print option

Apply a Filter on all new traces

Apply the 'Automatic' Analysis mode on all traces

Copy the trace information with template

Apply 'Zoom' option on new traces

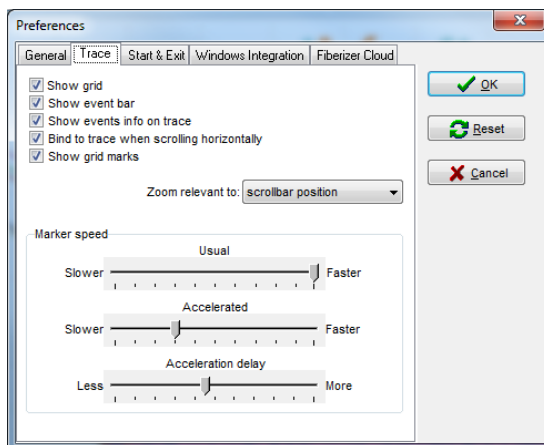
Maximize the trace window

Sound at the end of measurement

Use Click for Marker Jump

Notify when opening multiple related traces

Trace



Show grid – Turns on/off the background grid

Show event bar – Shows the bottom marker bar highlighted in Red

Show events info on trace – Turns on/off the automatic analysis measurement

Bind to trace when scrolling horizontally – Changes the starting point of horizontal scrolling

Show grid marks – Shows position marks on the grid

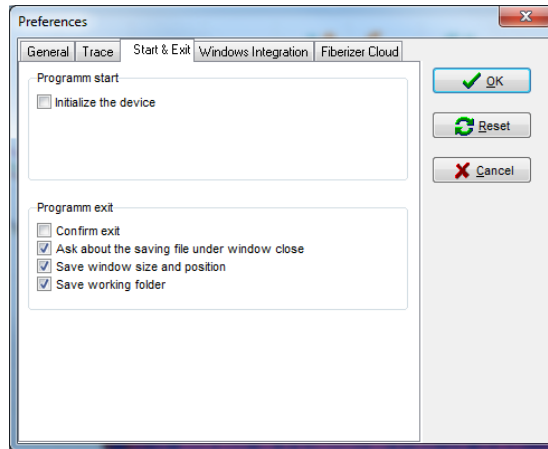
Zoom relevant to

- Left corner
- Center
- Right corner
- Scrollbar

Marker speed – The marker speed can be changed to varying speed

- Usual
- Accelerated
- Acceleration delay

Start & Exit



Initialize the Device – Automatically checks the device connection when software is launched

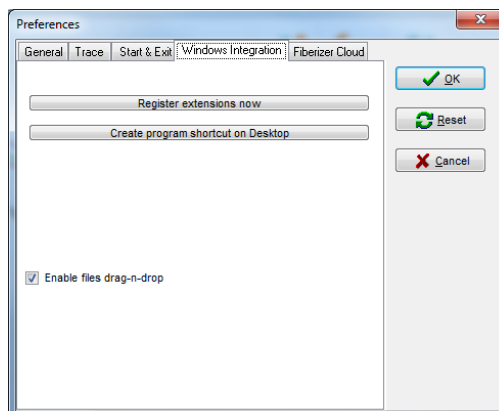
Confirm Exit – Confirms exit when closing program

Ask about saving file – Asks if the operator would like to save the trace before closing

Save Window size and position

Save working folder – Saves in last working directory

Windows Integration

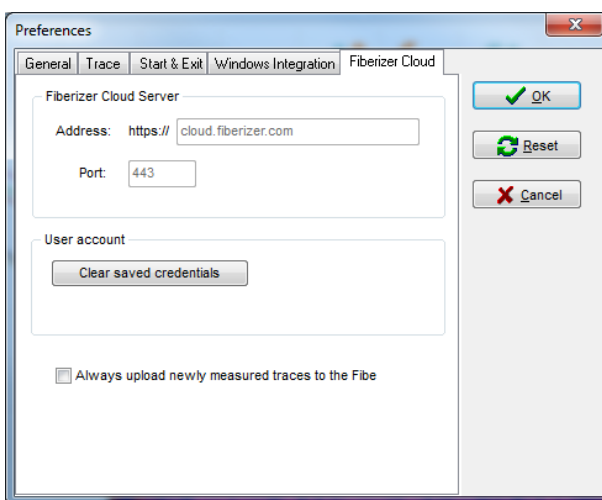


Register extensions now – Enables users to click on a *.sor file to be opened by Fiberizer software (if not already opened) and load the associated traces when the 'associated known file types' is checked

Create a shortcut on the desktop of a PC or a Laptop

Enables users to drag a file onto the Trace window to open the file

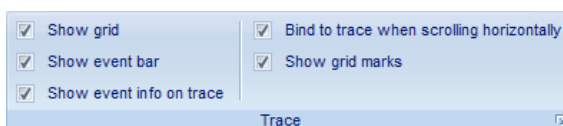
Fiberizer Cloud



Clear saved credentials – Enables users to log out of Fiberizer Cloud

Always upload newly measured traces to the Fiberizer Cloud – Checks this button if you want traces to be automatically sent to your Fiberizer Cloud account

Trace Group



Show grid – Turns on/off the background grid

Show event bar – Shows the bottom marker bar highlighted in Red

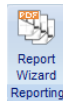
Show events info on trace – Turns on/off the automatic analysis measurement

Bind to trace when scrolling horizontally – Changes the starting point of horizontal scrolling

Show grid marks – Shows position marks on the grid

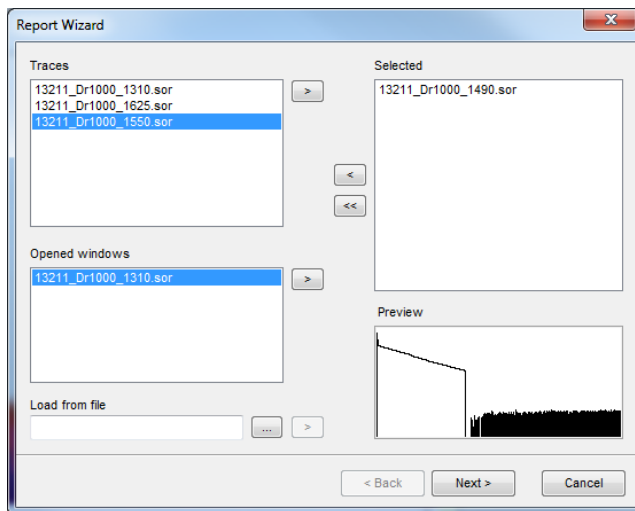
Batch Processing Tab

Reporting Group



Launch Report Wizard dialog to create PDF reports for many SOR files.

Report Wizard Dialog



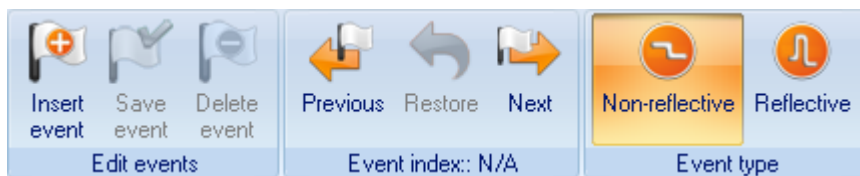
Events Table Panel

The **Events Table** lists the measurement values of the data points (marks, \perp) on the fiber under test.

Section		OF loss	Cumulative loss
Type	Distance	Loss	Reflectance
┐ Begin of fiber	0.00000 km		-39.319 dB
1. ↔ Fiber section	22.84864 km	0.352 dB/km	8.043 dB
┘ Splice loss		0.462 dB	
2. ↔ Fiber section	9.97667 km	0.344 dB/km	11.937 dB
┘ Splice loss	32.82531 km	0.232 dB	
3. ↔ Fiber section	25.05975 km	0.327 dB/km	20.363 dB
┘ Splice loss	57.88506 km	19.343 dB	

The **Events Table** contains:

- ❖ Fiber sections numerated
 - section length
 - attenuation coefficient for the section
 - total attenuation for the section
- ❖ events at connection points (at the beginning and at the end of the section)
 - event type
 - fiber beginning
 - fiber end
 - with reflection
 - attenuation
 - attenuation
 - attenuation at the connection point, dB
 - reflectance, dB
- ❖ The **Events Table** can be managed in the **Event markers** tab.



- ❖ When an event is selected, the corresponding trace shows all the markers with which the event parameters are calculated.
- ❖ To delete an event from the trace and the table, click **Delete** event. The beginning and the end of the fiber cannot be deleted.
- ❖ To move an event, select it in the table, then change its parameters in the section shown below:

The dialog box shows parameters for an event. It has tabs for 'Event markers', '2 markers', 'ORL', 'Analysis', 'Trace', and 'Compare'. The 'Event markers' tab is active.

Length		Additional markers	
Distance, km:	50.20941	Left, km:	1.84879
L, km:	50.20941	Right, km:	159.99978
R, km:	159.99978		
		dB/km:	0.323
		dB/km:	0.000

- ❖ To save the changes, click **Save event**.

Event Table Window



Where

1. Indicates Event without reflection
2. Indicates Event with reflection

4. Default Settings

1 Default BC values

- -82 dB for SM at 1550 nm
- -77 dB for SM at 1310 nm
- -76 dB for MM at 1300 nm
- -68 dB for MM at 850 nm

2 Default RI values

- 1.4682 for SM at 1550nm
- 1.4675 for SM at 1310nm
- 1.486 for MM at 1300nm
- 1.4900 for MM at 850nm

For an exact index of refraction value of the cable, contact the fiber optic cable manufacturer.

3 Available values in km:

2, 5, 10, 20, 40, 80, 120, 160 and 240

4 L1 marker can be placed anywhere from 0 to L2 in the trace window.

5 L2 marker can be placed anywhere from the L1 to the **Lmax** in the trace window.

6 Shorter pulses are generally used for shorter distances and higher resolution. Longer pulse widths are required for longer fiber runs. The allowable pulse width is determined by the distance range **Lmax**.

7 **Number of Averages** (4096*Nav) defines the number of allowable trace averages when the OTDR measurement is running. **Nav** may be set to any of the following values

1, 2, 4, 8, 16, 32, 64, 128, 256

Averaging Time (min:sec) can be set by users for particular measurement.

NOTES